

REMARKS

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

I. Status of the Claims

Claims 1-4 were previously pending.

Claims 1-4 stand rejected.

Claims 1 and 2 have been amended. No new matter is added.

II. Rejections under 35 U.S.C. § 103

Claims 1-4 stand rejected under 35 USC § 103(a) as being unpatentable over Japanese Patent No. 2002-180162 (“JP ‘162”). The Examiner states that JP ‘692 discloses a wear resistant bearing for a motor fuel pump comprising a Cu-based sintered body of compacted powders having a composition in weight of 1-8% graphite, 0.1-0.9% P and 20-40% Ni and having a porosity of 5-25%. The Examiner contends that the content ranges of graphite, P and Ni in the Cu-based sintered body of JP ‘162 overlap the claimed ranges, and therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed ranges with expected success.

Independent claims 1 and 2 have now been amended to recite that “the blended base powders are press-molded into a compacted powder, the compacted powder is sintered into a sintered body, and the sintered body is sized within the range of 400 to 500 MPa.”

As a result of sizing the sintered body, as recited in amended claims 1 and 2, the sintered body is flattened. For example, Fig. A below shows a raw material that has been press-molded and then sintered. As a result of the sintering the surface has deformed and rounded particles. This characteristic leads to a surface roughness of about 20 μm maximum height.

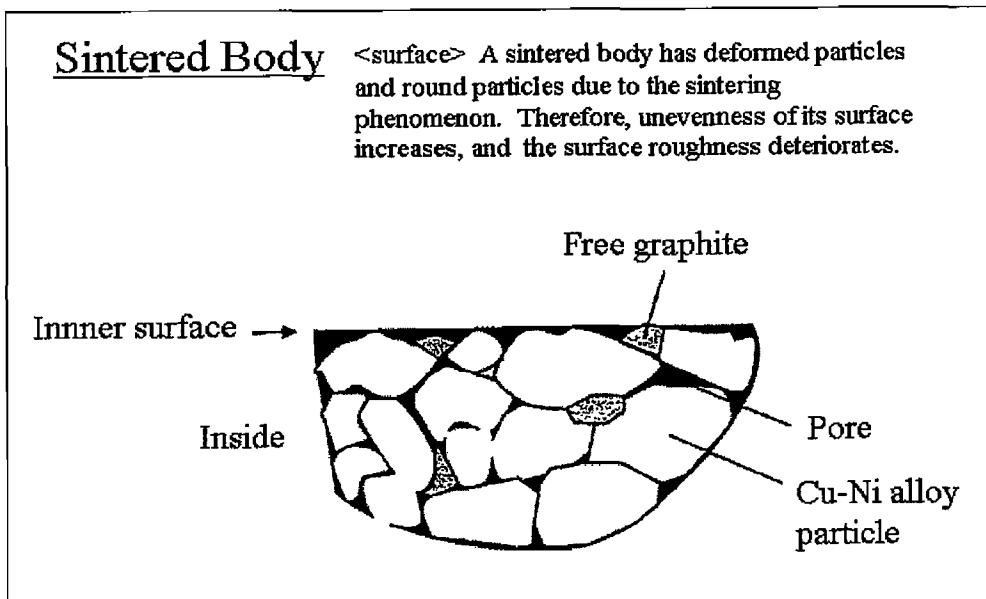


FIG. A

However, if the sintered body is sized within a range of 400 to 500 MPa, as recited, the surface roughness is reduced and the surface is flattened, as shown in Fig B. For example, the surface roughness may be flattened to a maximum height of about 3 μm . Synergism between the composition recited in claim 1 and sizing the sintered body formed of that composition result in an advantageous flatness.

Sized Body

<surface> A sized body has flattened particle surfaces due to pressing of a metal mold. Therefore, the surface roughness improves.

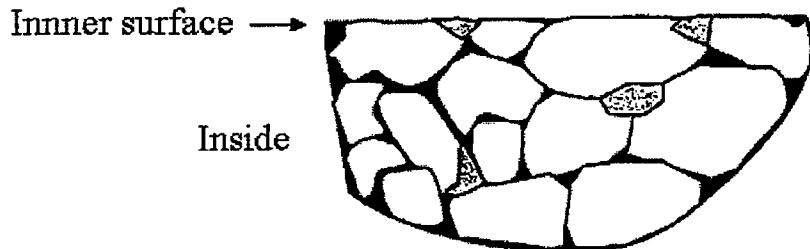


FIG. B

As a result of the claimed of the claimed features, the bearing surface has an improved flatness after it has been sized in a range of 400 to 500 MPa. Accordingly, the accuracy of an opening between the bearing and a rotating shaft is improved. This results in a reduction of unevenness of the bearing surface that contacts the rotating shaft, which yields greater wear resistance and longer periods of use of the bearing.

In contrast, JP '162 fails to teach or suggest a sintered body that is sized within the range of 400 to 500 MPa. Accordingly, the bearing surface of JP '162 has a greater unevenness. This causes a reduced wear resistance and deteriorating characteristics of the bearing during long periods of use. Because JP '162 fails to teach or suggest the features of claims 1 and 2, it cannot render obvious either of these claims. Claims 3 and 4 depend from claim 2 and are patentable for at least the same reasons as claim 2.

Reconsideration and withdrawal of the rejection of claims 1-4 under 35 U.S.C. § 103(a) is respectfully requested.

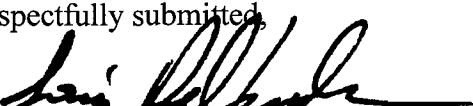
CONCLUSION

Each and every point raised in the Office Action dated July 13, 2007 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-4, as amended, are in condition for allowance and it is respectfully requested that the pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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